#### Massachusetts Urban & Community Forestry Program

# The Citizen Forester

APRIL 2015

### Winter's End, Spring's Arrival:

### The Annual Community Tree Conference at UMass

By Rick W. Harper, Out of the snowiest February on record for Massachusetts sprang

forth the seasonal event that regularly attracts 250 urban foresters, commercial arborists, and shade tree committee volunteers: the University of Massachusetts's Annual Community Tree Conference in Bowker Auditorium at Stockbridge Hall on the campus of UMass Amherst. Taking place on Tuesday, March 10, 2015, this year's conference theme was Preserving Trees and Landscapes in a Changing Environment and highlighted the understanding, preservation, and protection of historic trees. As always, this event provided not only the occasion to hear from informative and enlightening speakers from across Massachusetts and the Northeast, but also provided important networking opportunities for its attendees.

Mollie Freilicher, Community Action Forester with the Massachusetts Department of Conservation and Recreation Urban and Community Forestry Program, started the day's roster of speakers with an update about the state's newly energized Big Tree Registry. She detailed the revitalization of this program and discussed various examples of noteworthy trees across the state — past and present. Her take-home message was straightforward: If

Up Ahead:
Community
Tree
Conference 1-2
Species
Spotlight 3
Growing on
Trees 5
Gleanings 10
News 10-11
On the
Horizon 12

you have a tree you feel may be of size to be possibly considered a "champion," reach out to MA DCR and nominate it! Dave Hawkins, Consulting Arborist and Principal of Urban Forestry Solutions, enlightened attendees with a better understanding of how to appraise a tree – especially if it is of historical significance! UMass Extension turfgrass team leader Mary Owen updated attendees on Chapter 262, the legislation that was passed in 2012 authorizing the enactment of new statewide nutrient management regulations by the

Massachusetts
Department of
Agricultural
Resources. While,
according to
Owen, many aspects of this legislation are more
oriented toward
regulating nutrientrelated activities on
production settings
like farms and
nurseries, certain



related activities on Stockbridge Hall – location of the production settings Annual Community Tree Conference at UMass.

provisions may impact tree care professionals, depending on the locality within the state, and especially on whether professionals are applying fertilizers to lawns during certain times of the year. As of March 2015, the statewide regulations had not yet been released. The morning closed with a presentation from the National Parks Service about <u>landscape restoration</u> activities at the <u>Springfield Armory</u>.

Afternoon festivities included the handing out of scholarship awards to deserving UMass students by Bob Leblanc, President of the Massachusetts Tree Wardens' and Foresters' Association, Rich Herfurth President of the Massachusetts Arborists Association, and Chris Fallon from the Southeastern Massachusetts Tree Wardens' and Arborists' Association.

The afternoon slate of speakers commenced with William DeVos, Principal of <u>Treeworks</u>, based in **Montpelier, VT. Bill's talk** — Pruning and Cabling to Preserve Historic Trees — discussed some of the many high-end cabling and bracing projects he has consulted on all over the country. His talk especially resonated with Arboriculture/Urban Forestry students, and many of them were

(Continued on page 2)

PAGE 2 APRIL 2015

### UMass Community Tree Conference

(Continued from page 1)

talking about his lecture after the conference was over. Dr. Dave Bloniarz, USDA Forest Service Urban Forest Researcher and Director of the <u>Urban Natural Resources Institute</u> followed with a lecture about how the benefits of community's urban forests increase over time and may be better understood using <u>i-Tree</u>. Finally, the day closed with a wrap-up from the <u>UMass Extension Plant Diagnostic Laboratory</u> Plant Pathologist, Dr. Nicholas Brazee. Nick detailed some of the samples the clinic received over the 2014 growing season and highlighted emerging plant diseases in New England, such as oak wilt and bacterial leaf scorch. While those two diseases are not yet in New England, Nick cautioned that they may be on the horizon. Nick also highlighted some of his current research on wood decay and carbon storage in trees. Throughout his talk, Nick discussed what changes may occur in the long-term, as climate conditions continue to shift in association with global climate change. Summing up the day's events, Brazee offered this analysis: "This conference provides cutting-edge updates and the latest information for real-world practitioners like urban foresters, arborists, and plant enthusiasts who are trying to solve real-world problems in a time of environmental and regulatory change...! believe the regular robust attendance that we receive year after year is confirmation of the success of this conference and speaks clearly to the importance of this annual event."

Congratulations to all involved in yet another successful conference!

Rick W. Harper is the Extension Assistant Professor in the Department of Environmental Conservation at UMass-Amherst.

#### Native Conifers for the Landscape

Several of you wrote in after last month's article on using conifers in the urban landscape and wanted to know what native conifers might be appropriate for urban landscapes. In response, we have compiled this chart of conifers native to Massachusetts. For more information on the species listed below, refer to the UConn Plant Database.

Common Name	Scientific Name	Zone	Height (ft)	Soil Ever-		Comments
Atlantic white cedar	Chamaecyparis thyoides	4-8	40-50+	Moist, sandy soil yes		Wet sites, gardens
Eastern red cedar	Juniperus virginiana	3-9	40-50+	Wide range of soil types Ye		Tolerant of urban conditions
Larch, Tamarack	Larix laricina	2-5	40-80	Moist, well- drained soils	no	intolerant of shade and air pollution
White spruce	Picea glauca	2-6	40-60+	Moist loam soils	Yes	Tolerant of heat, drought, wind, and crowding
Pitch pine	Pinus rigida	4-7	40-60+	Sandy, well- drained soil	Yes	Salt-tolerant, drought-tolerant
White pine	Pinus strobus	3-8	50 - 80+	Moist, well- drained	Yes	Intolerant of air pollution and salt
Arborvitae	Thuja occidentalis	3-7	4-60+	Well-drained soil	Yes	Tolerant of pruning, heat, and drought

APRIL 2015 PAGE 3

# Species Spotlight—Red chokeberry, Aronia arbutifolia

By Mollie Freilicher MA-DCR Community Action Forester This month, we examine a smaller specimen for our species spotlight: red chokeberry (Aronia arbutifolia). Red chokeberry is a member of the rose family and is native

to Massachusetts. Its native range extends from Massachusetts, south to Florida, and west to Texas. It naturally occurs in bogs, swamps, woods, and lowlands, although in New England, it is more common to find it near the coast. It is hardy in



zones four to nine. It is a multi-stemmed shrub, typically growing to six-to-ten feet high, with a spread of three-to-five feet. At maturity, it is wider than tall and has a distinct upright growth habit. It readily forms suckers and can form a mass that can be contained through pruning. The common name "chokeberry" refers to the

raw fruits, which are somewhat astringent. Chokeberry is a different plant than

"chokecherry," the common name of Prunus



virginiana. There is an effort among companies producing chokeberries commercially (often a related species A. melanocarpa) to call the berries "aronia berries" or simply "aronia," to leave the negative connotations of having "choke" in the common name.

Leaves of chokeberry are simple, alternate, elliptic to obovate, 1.5-to-3.5 inches long, with an acute tip and minute teeth. Leaves are a shiny dark green color above and paler and tomentose on the underside. In fall, the leaves turn red, for a bright display of fall color.

Red chokeberry flowers in early May, with clusters of small, white perfect flowers in corymbs of 9-20 flowers. The bright red fruit, a pome, ripens in the early fall. It will persist through the fall and into the winter as it is not utilized by birds until later in the winter.





Red chokeberry is relatively free from disease and insect problems and does well in partial or

full sun, though it will produce more berries in full-sun settings. Red chokeberry makes a great native addition to a border or naturalized area and is a great selection for massed plantings. It does well in a variety of soil types, both wet and dry. 'Brilliantissima' is a commonly available cultivar known for shiny green leaves and bright red fall color.



Pictures: Fall color, form, flowers, leaf, UConn Plant Database, Frut: Wikimedia.

PAGE 4 APRIL 2015

# Growing on Trees

### Happy Arbor Day!

Friday, April 24, 2015
For ideas on how to celebrate in your community, go to: <a href="http://www.arborday.org/celebrate/">http://www.arborday.org/celebrate/</a> celebration-ideas.cfm

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# The Landscape Message Is Back for 2015

http://extension.umass.edu/landscape/

UMass Extension's Landscape Message is a regular online update to inform and help guide Green Industry professionals in the management of our collective landscape.

Each Landscape Message includes valuable information from sites throughout Massachusetts: growing degree day accumulation, soil temperature, precipitation amounts, and plant phenology. Detailed reports on cultural practices and the status of insects, diseases, and weeds of interest to landscapers, arborists, and turf managers are also regular features. New messages are available weekly during the heart of the growing season, biweekly in mid to late summer, and monthly during the fall.

Subscribe to the UMass Extension e-mail list to receive notification in your inbox when each new message is posted: <a href="http://extension.umass.edu/landscape/services/email-list">http://extension.umass.edu/landscape/services/email-list</a>.

# The Pursuit of Sustainable Living Community & Campus Sustainability Conference

April 16, 2015, 8:00 a.m. – 4:30 p.m. Devens Common Center, <u>Devens, MA</u>

Communities and campuses are pursuing sustainability: green businesses, net zero energy, zero waste, community farms, miles of bikeable/walkable routes, solar fields.... Learn about best practices, research, products, and services. Take home ideas and resources.

# From the Ecological Landscape Alliance

Green Roofs and Living Walls

April 1, 2015, 6:30 p.m. EDT - 7:30 pm EDT, \$25 Living roofs and walls are popping up everywhere, in social media, magazines, and in our cities. What are they? How do they work? Can you have one? Trevor Smith

will explain it all: the pros and cons of the different systems on the market, his successes and failures, and the steps you must follow to take your garden to new heights.

CEU: 1 AOLCP; 1 MCLP

Trevor Smith is the lead designer of Land Escapes Design Inc. a full service ecological landscaping company in the Boston area.

Read more about the event at ecolandscaping.org.

Sustainable Sites Tour - Rhode Island June 5, 2015, 9:30 a.m. EDT - 3:00 pm EDT, \$85 Visit two notable sustainable landscapes in Rhode Island. The first is Kent Hospital, where an award-winning landscape design transformed the 40-acre campus into a showcase for sustainable design practices; we will see rain gardens and healing gardens. The second site is a small urban lot that was redesigned to reflect Rhode Island native plant communities, demonstrate enhanced storm water management, and promote biodiversity. Bring a bag lunch.

CEU: 4 AOLCP; 2 MCLP; .5 MCH

Tom Benjamin is an independent registered Landscape Architect and LEED Accredited Professional (AP BD+C) practicing design and sustainability consulting and is Principal of Wellnesscapes.

Read more about the event at: ecolandscaping.org.

#### www.MaSustainableCommunities.com

Program Exhibits Schedule
Registration Cost\_
\$75
\$45 Students

Groups (5 or more) use code GROUP for \$5 discount

THE CITIZEN FORESTER

APRIL 2015 PAGE 5

# Growing on Trees—Grants

# DCR Urban and Community Forestry Challenge Grants

Deadline May 1

Challenge grants are 50-50 matching grants (75-25 for environmental justice projects) to municipalities and non-profit groups in Massachusetts communities of all sizes for the purpose of building local capacity for excellent urban and community forestry at the local and regional level.

The USDA Forest Service provides funding for the grant program, and DCR administers the grants with guidance from the Massachusetts Tree Wardens' and Foresters' Association. The DCR Urban and Community Forestry Program assists communities and nonprofit groups in their efforts to protect and manage community trees and forest ecosystems, with the ultimate aim of improving the environment and enhancing the livability of all of Massachusetts's communities.

For more information on the Challenge Grants (including our Eversource Go Green grants and National Grid Partnership Grants, contact Julie Coop at 617-626-1468 or <a href="mailto:julie.coop@state.ma.us">julie.coop@state.ma.us</a> or Mollie Freilicher at 413-577-2966 or <a href="mailto:mollie.freilicher@state.ma.us">mollie.freilicher@state.ma.us</a>.

#### Clif Bar Foundation

Small Grants represent the vast majority of our Grants Programs and account for more than 70% of our total giving. These grants are awarded for general organizational support or to fund specific projects.

Small Grants average approximately \$8,000 each.

Applications must be received by February 15 for consideration during the first quarter of the year, and May 15, August 15, and November 1 for consideration for funding during the second, third, and fourth quarters, respectively. (Of course we would appreciate it if you could submit your application earlier in the quarter.) Grants awarded during a particular quarter will be announced at the beginning of the following quarter.

#### Patagonia

Patagonia grants support a variety of projects from small, grassroots, activist organizations with provocative direct-action agendas, working on multi-pronged campaigns to preserve and protect our environment.

Patagonia accepts one proposal per group, per fiscal year (May 1st - April 30th). Typical Grant Range: up to \$12,000.

#### Proposal Deadlines:

- If your work is located near one of our retail stores, your proposal will be reviewed by store employees.
   Our stores accept proposals on a rolling basis, throughout the year.
- If your work is not located near one of our retail stores, your proposal will be reviewed by an employee Grants Council at our company headquarters.

There are two annual deadlines for this process:

- April 30. (All applications received in April will receive a response by the end of August)
- August 31. (All applications received in August will receive a response by the end of January.)

For more information go to: Patagonia.com.

Priority is given to applicants that:

- Address our funding priorities from a holistic perspective.
- Protect Earth's beauty and bounty.
- Create a robust, healthy food system.
- Increase opportunities for outdoor activity.
- Reduce environmental health hazards.
- Build stronger communities.
- Operate with clearly defined objectives and viable plans to achieve them.
- Demonstrate strong community ties and operate at the community level.
- Promote positive change through both the projects and their implementation process.

For more information, go to: <u>clifbarfamilyfoundation.com</u>.

PAGE 6 APRIL 2015

# Growing on Trees

#### Sustainable Urban Forestry— UMass Summer School

People Need Trees and Trees Need Care Stockbridge School– UMass Summer School July 13 - 17, 2015

UMass will offer a one-week course for high school students again in July 2015. The one-week intensive course is a balanced academic study of the science and business of arboriculture and offers an introduction to the basic skills required to work in the field with trees.

In addition to offering a first-rate introduction to arboriculture to the high school students who participate, the organizers are hoping to recruit some of them to attend Stockbridge and UMass.

Arborists are in great demand in many towns and cities because it is important to properly plant and maintain trees. There are currently multiple career opportunities for graduates with either a two- or a four-year degree in Arboriculture & Urban Forestry from UMass-Amherst. Even if they choose not to attend Stockbridge, some students may enter the arboricultural workforce with good skills, or at least become better consumers of arboricultural services as adults.

Please visit <a href="http://www.umass.edu/summer/">http://www.umass.edu/summer/</a> precollege.html and click on the link for "Urban Forestry" for more information.

# Urban Forestry and Arboriculture Online Courses and Degree Programs

Interested in furthering your personal or professional goals by taking an online class? Oregon State University offers a variety of courses that can be taken individually or while working toward an undergraduate degree, graduate certificate, or master's degree.

For more information, go to: <a href="http://">http://</a>

ecampus.oregonstate.edu/online-degrees/graduate/urbanforestry/

#### Harvard Forest Seminar Series

Attend in person or via the web. Seminars are Fridays at 11:00 a.m. Eastern Time, unless otherwise noted. They are held in the Harvard Forest Seminar Room and also can be joined online via webstreaming. Seminars are free and open to the public; no pre-registration is required. For additional information, contact Audrey Barker Plotkin (aabarker@fas.harvard.edu).

Friday, April 3

Diana Tomback – Harvard Bullard Fellow & University of Colorado, Denver

Facilitation at treeline in the Rocky Mountains: disruption by exotic disease and implications for climate change

Join seminar online

Friday, April 10

Matthew Lau - Harvard Forest

Foundation species genetic variation alters ecological interaction networks

Join seminar online

Friday, April 17

Michelle Steen-Adams – University of New England Utility of integrating environmental history and land-scape ecology? Influence of social history and biophysical factors on long-term forest landscape change (1860-1990) in northern Wisconsin Join seminar online

Friday, May 1

Wyatt Oswald – Harvard Bullard Fellow and Emerson College

Post-glacial climate, vegetation, and fire across southern New England

Join seminar online

Friday, May 8

Chris Reed –Stoss Landscape Urbanism & Graduate School of Design

Title TBA

Join seminar online

We do our best to ensure that listings are accurate, but please check with program organizers for the most up-to-date information.

APRIL 2015

## Growing on Trees

#### Webcasts

#### **Urban Forestry Today**

Two-Part Spring Series: 'Pests in our Midst'

#### They're Coming...Planning Ahead for the Urban

Landscape Pests of 2015

Thursday, April 30, 2015, 12:00 p.m. to 1:00 p.m. (EDT)

Commercial arborists, urban foresters, and interested volunteers can join Rutgers University Diagnostic Lab Director, Rich Buckley, as he outlines what insects and diseases were "hot" and what were "not" in 2014, in an effort to predict what we might expect in the upcoming 2015 growing season.

To attend this free webcast and obtain ISA/MCA CEUs simply visit <a href="https://www.joinwebinar.com">www.joinwebinar.com</a> (code# 119-819-267) at noon on Thursday April 30.

Save the date for the second webcast in the spring series: Technology, Pests, and Urban Trees, Thursday, May 21, 2015.

For more information, contact: Rick Harper, Department of Environmental Conservation University of Massachusetts, Amherst rharper@eco.umass.edu

Sponsored by the University of Massachusetts Department of Environmental Conservation, in cooperation with the Massachusetts Tree Wardens' & Foresters' Association, University of Massachusetts Extension, and the Massachusetts Department of Conservation and Recreation.

#### Webcast from the TREE Fund Emerald Cash Borer: It will Cost You Money - Ways to Manage the Ash Cash Flow

April 28, 2015, 2:00 p.m. (Eastern) Dr. Richard Hauer, University of Wisconsin, Stevens Point

The past decade has brought many science-based approaches to manage ash populations - letting ash die, removing them preemptively, treating them, or using some combination of these tactics. This presentation will focus on the economic considerations of these EAB management options. Dr. Richard Hauer's research was partially funded by a John Z. Duling grant from the TREE Fund. Randall Miller, TREE Fund Chairman of the Board, will introduce Dr. Hauer and the TREE Fund. For more information, go to: <a href="http://forestry.usu.edu/htm/video/webinars/tree-fund-and-the-emerald-cash-borer/">http://forestry.usu.edu/htm/video/webinars/tree-fund-and-the-emerald-cash-borer/</a>.

#### **Urban Forest Connections**

Second Wednesdays | 1:00 – 2:00 pm ET

The Forest Service's Urban Forest Connections webinar series brings experts together to discuss the latest science, practice, and policy on urban forestry and the environment. These webinars are open to all. Past webinar presentations and recordings are available online: <a href="http://www.fs.fed.us/research/urban-webinars/">http://www.fs.fed.us/research/urban-webinars/</a>.

Emerald Ash Borer: Status, Management Options, and Cost Calculators
April 8, 2015 | 1:00 p.m. - 2:00 p.m. EDT
Deborah McCullough, Michigan State University
Cliff Sadof, Purdue University Extension
Richard Hauer, University of Wisconsin – Stevens Point

Upcoming Sessions:

May 13, 2015 | 1:00-2:00 p.m. EDT June 10, 2015 | 1:00-2:00 p.m. EDT

# EAB University— Webcasts on Demand

Some of the topics in 2015 include Emerald Ash Borer's Latest Victim: White Fringe Tree, 2015 EAB Toolkit Update and the Best of EAB University, and Developing EAB and Ash Management Plans for PA. For more information on EAB University and to view pas webcasts, go to: <a href="mailto:emeraldashborer.info">emeraldashborer.info</a>.

#### Faces of Urban Forestry

The Arbor Day Foundation Faces of Urban Forestry project is complete! Faces of Urban Forestry is a compilation of stories from every state outlining the value of investment in urban forestry programs and how funding is leveraged to improve the lives of citizens across the country. Check out the project on the Arbor Day Foundation website.

#### From UMass Extension

UMass Extension is hosting numerous courses and workshops this spring. Look for programs on invasive species, pollinators, backyard orchards, pests and weeds, and more.

Go to <u>www.umassgreeninfo.org</u> for more information.

PAGE 8 APRIL 2015

# Growing on Trees

#### From the Arnold Arboretum

Learn more and register for these events at: <a href="http://my.arboretum.harvard.edu/Info.aspx?">http://my.arboretum.harvard.edu/Info.aspx?</a>
EventID=1

Identifying the 25 Most Common Trees in Boston <u>Kyle Port</u>, Manager of Plant Records, Arnold Arboretum 1 Session: Sunday, May 17, 9:00am—1:00pm

Location: Hunnewell Building

In just a few hours you can learn to identify 90 percent of the trees growing in Boston, both native and nonnative. Beginning in the classroom, you will briefly review the characteristics of the 25 most common trees and learn the botanical terminology necessary to describe them. You will then walk the grounds of the Arboretum to look at mature specimens of these trees. Bring a notebook or clipboard for this information-rich program. Fee \$45 member, \$60 nonmember

Chasing the Red Queen: The Evolutionary Race between Pests and Poisons

<u>Andy Dyer</u>, PhD, Associate Professor of Biology, University of South Carolina, Aiken

1 Session: Wednesday, June 10, 7:00–8:30pm

Location: Hunnewell Building

In Through the Looking Glass, the Red Queen tells Alice she must run as fast as she can, just to stay in place. Modern agriculture, with its almost total dependence on chemical pesticides, is the Alice of today. Try as we might, our every attempt to control insects and weeds is met with an evolutionary response: they adapt and become resistant to the poisons. We fight back with new, improved chemicals—they respond by adapting again, and on it goes, over and over, as it has for the past sixty years. But Andy Dyer believes that if we use the principles of evolutionary biology, we stand a good chance of taking control of our food supply and weaning our agricultural system from chemical dependence. Join us for a biological perspective on securing foods of our future. Fee \$5 member, \$10 nonmember

Pruning Project:

Taming the Early Season Bloomers Jen Kettell, Arborist and Horticultural Educator 1 Session: Monday, June 15, 6:30–8:30pm

Location: Hunnewell Building

Now is the time to prune those early-blooming shrubsonce they've flowered--so their growth through the summer can fuel the development of next year's buds. ISA-certified arborist Jen Kettell will focus your attention on the kinds of shrubs that should be pruned now, various pruning cuts, and the type of thinning that will encourage health and vibrant blooms for years to come. Fee \$25 member, \$35 nonmember

In the Groves: A Summer Solstice Journey

<u>Diane Edgecomb</u>, Storyteller, and Margot Chamberlain, Celtic

Harpist

2 Sessions (select one): Friday, June 19, or Saturday,

June 20, 6:30-8:30pm

Location: Hunnewell Building

Join us for an enchanting evening of Tree Myths, Songs, and Summer Solstice Legends. Diane and Margot spin tales of the human connection with trees and the deep meaning we have assigned to them through the ages. This unique performance, designed specifically for the Arnold Arboretum, travels through the Arboretum with story and music. Each story is told under a different tree or among a unique collection of Arboretum plants. The program begins under a grand Cedar of Lebanon, moves into the rosaceous collection, to the oaks of Bussey Hill, then onward to Hemlock Hill, culminating with the haunting Czech legend "The Wild Woman of the Birch Grove," told amid the birches at sunset. Appropriate for adults and for children twelve years and above. Bring a cushion to sit on if you wish. Registrants will walk approximately two miles on and off trails on uneven terrain. The performance takes place rain or shine. In the event of rain, it will be held in the Hunnewell Building lecture hall. Register early for this popular event. Fee \$20 per person through June 10; \$25 per person after June 10

APRIL 2015 PAGE 9

# Gleanings

#### Climate Action Plan Toolkit: EPA Releases Stormwater Climate Change Tool



Release Date: 02/13/2015

Contact Information: Cathy Milbourn, milbourn.cathy@epa.gov, (202) 564-7849; Contacto en español: Lina Younes, younes.lina@epa.gov, 202-564-9924, 202-565-4355

WASHINGTON – As part of President Obama's Climate Action Plan <u>Virtual Climate Resilience Toolkit</u>, the U.S. Environmental Protection Agency (EPA) announced the release of the Climate Adjustment Tool for EPA's Stormwater Management Model (SWMM)— a widely-used, downloadable online stormwater simulation model. The Climate Adjustment Tool allows engineers and planners to evaluate the performance of water infrastructure while considering future climate change projections, such as more frequent high-intensity storms and changes in evaporation rates of seasonal precipitation, to determine the benefits of resiliency decisions to reduce local economic burden and protect communities.[...]

EPA's Stormwater Management Model is used throughout the world for stormwater runoff reduction planning and analysis and design of combined and sanitary sewers, as well as other drainage systems. Originally released decades ago, SVVMM is now used in thousands of communities throughout the world, including as the core modeling engine in cities such as Philadelphia, Cincinnati, Indianapolis, and Seattle.

To assist community planners and managers in determining resiliency and sustainability actions that will help protect against extreme weather and reduce the local economic burden after a natural disaster, EPA has developed additional tools, including:

**EPA's Stormwater Calculator**- a tool that can be used by homeowners, landscapers, and developers to estimate the amount of rainwater and frequency of runoff on a specific site based on local soil conditions, land cover, historic rainfall records, and climate change scenarios.

For more information on the complementary National Stormwater Calculator, visit: <a href="http://www2.epa.gov/water-research/national-stormwater-calculator">http://www2.epa.gov/water-research/national-stormwater-calculator</a>

**EPA's Climate Resilience Evaluation and Awareness Tool (CREAT)**- a tool that assists drinking water and wastewater utility owners and operators understand potential climate change threats and assess the related risks. For more information on the Climate Resilience Evaluation and Awareness Tool, visit: <a href="http://water.epa.gov/infrastructure/watersecurity/climate/creat.cfm">http://water.epa.gov/infrastructure/watersecurity/climate/creat.cfm</a>

For additional information about the Stormwater Management Model and Climate Adjustment Tool, visit <a href="http://www2.epa.gov/water-research/storm-water-management-model-swmm">http://www2.epa.gov/water-research/storm-water-management-model-swmm</a>

Check out the entire toolkit <a href="http://toolkit.climate.gov/tools">http://toolkit.climate.gov/tools</a>

For more information about the President's Climate Action Plan, visit <a href="http://www.whitehouse.gov/sites/default/files/image/president27sclimateactionplan.pdf">http://www.whitehouse.gov/sites/default/files/image/president27sclimateactionplan.pdf</a>

For more information on EPA's Green Infrastructure research, visit http://water.epa.gov/infrastructure/greeninfrastructure/index.cfm

PAGE 10 APRIL 2015

## Gleanings

# New Invasive Insect Discovered in Southeastern Pennsylvania

Devin Wanner, U.S. Forest Service, Northeastern Area State and Private Forestry

It's called the spotted lanternfly (*Lycorma delicatula*). This Asian native was first confirmed in the United States in September 2014 in Berks County, Pennsylvania. The Pennsylvania Department of Agriculture and Pennsylvania Game Commission jointly made the positive identification.



"Since Pennsylvania is the first known home to spotted lanternfly in North America, we're taking every possible precaution to stop its spread and eliminate this threat to agriculture," said State Agriculture Secretary George Greig in a press release. Read the full article about the spotted lanternfly.

#### News

# From Pecan To Walnut: American Leafminer Invades Italy on a New Tree

By Naturalis Biodiversity Center

February 3, 2015—A leafminer that has been invading Italian walnut orchards since 2010, has been shown to be identical to the North American species that feeds on hickories and pecan. The identity of these moths as *Coptodisca lucifluella* was proved by DNA barcoding and morphological study. Probably the moth invaded the new host plant after it invaded Italy. The leafminer is already widespread in Italy but the level of damage does not seem to be worrisome, experts report. Read the full story at phys.org.

#### European Union Orders Felling of 11 Million Trees in Southern Italy That Are Infected With Deadly Microbe

By Hannah Roberts

March 18, 2015—The price of olive oil is expected to rocket after the EU ordered the felling of millions of trees infected with a deadly microbe. Brussels has recommended that about 11 million olive trees in southern Italy, many centuries old, be chopped down. They have been infected with *Xylella fastidiosa*, a bacterium spread by an aphid. The disease, first identified in the Americas has already wiped out a million trees in Salento, southern Puglia. It is feared that unless drastic action is taken to fell the groves, the bacterium will spread to other olive-producing regions of Italy such as Tuscany and Umbria, and even to other Mediterranean countries. Read the full story at the <u>Daily Mail</u>. (The bacterium *Xylella fastidiosa* is

#### New York State Ban On Invasive Species Goes Into Effect

By Linda Rohleder

March 15, 2015—Many homeowners have breathed a sigh of relief, now that new regulations banning the sale, purchase, and transportation of a long list of invasive species that have plagued our properties — and our ecosystem — for years, has taken effect. As of March 10, it became illegal to buy, sell, or transport 126 species identified by the New York State Department of Environmental Conservation as invasive. The list includes 69 plants, 15 fish, 17 aquatic invertebrates (including several snails, clams, and snails), 13 terrestrial invertebrates (insects and land snails), five vertebrates (such as the mute swan) and seven species of algae, bacteria and fungi. In addition, 29 species are "regulated," meaning that, while they may be sold and transported, they may not be knowingly introduced on or near public lands or natural areas. Read the complete article at the Times Herald-Record, or view the state webpage on the ban at the Department of Environmental Conservation.

native to the United States and causes bacterial leaf scorch on many species and Pierce's disease on grape-vine. The bacterium is not yet known to be in New England, but it is found as close as Delaware, New Jersey, and Pennsylvania. For more information, go to: <a href="http://www.na.fs.fed.us/fhp/bls/">http://www.na.fs.fed.us/fhp/bls/</a>)

# PAGE 11

### News

# Billionaire Barry Diller's \$130 Million Floating Park in The Hudson

By Asta Thrastardottir

February 12, 2015—Media mogul Barry Diller and his wife, fashion designer Diane von Furstenberg, have com-



mitted to funding a floating public park and performance space on a pier in the Hudson River. Their pledge of over \$113 million will be the single largest private donation to a public park in New York City history, according to Capital New York. And now, the project will officially be built after a unanimous vote by the Hudson River Park Trust approving the plan on Wednesday, according to DNAinfo. Construction will begin on the park in 2016, and it is expected to be completed by 2019. According to DNAinfo, "more than half of the performances in the pier's amphitheater will be free or 'low-cost.'" The new addition to the waterfront will be called Pier 55 and is expected to cost more than \$130 million. The City of New York will provide \$17 million to the project, while New York State will provide a separate \$18 million for the construction of a public esplanade that will lead into the pier. Read more at businessinsider.com.

## Turning Smartphones into Personal, Real-Time Pollution Monitors

Feb.18, 2015—As urban residents know, air quality is a big deal. When local pollution levels go up, the associated health risks also increase, especially for children and seniors. But air pollution varies widely over the course of a day and by location, even within the same city. Now scientists, reporting in the ACS journal *Environmental Science & Technology*, have used smartphone and sensing technology to better pinpoint where and when pollution is at its worst. Read the full story at phys.org.

#### Key Genes For Symbiosis Between Mycorrhiza Fungi and Trees Evolved Several Times

Feb. 24, 2015—Champenoux/ Halle(Saale)/ Leipzig. The life style of ectomycorrhiza fungi is some 100 million years younger than the one of their ancestors within white and brown rot fungi. The key genome adaptation enabling fungi to associate to roots for establishing a symbiosis evolved repeatedly over time. This conclusion was drawn by an international team of researchers who performed the first comprehensive comparative phylogenomic analysis on mycorrhiza fungi, now appearing in the reputed scientific journal Nature Genetics. These sequences provide crucial information on how the symbiosis between fungi and trees evolved. This will enable scientists to improve their prediction of the reaction of mycorrhizal communities to environmental modifications, such as changes in forest management or climate. Read the full story at phys.org.

# Satellite Data Suggests Forest Loss Is Accelerating

By Kyle Plantz

March 2, 2015—London (Thomson Reuters Foundation) Satellite images suggest tropical forests from the Amazon to the Philippines are disappearing at a far more rapid pace than previously thought, a University of Maryland team of forest researchers say. The annual rate of deforestation from 1990 to 2010 was 62 percent higher than in the previous decade, and higher than previous estimates, according to a study carried out of satellite maps covering 80 percent of the world's tropical forests. The new study questions the United Nations Food and Agriculture Organization's (FAO) assessment, which suggested that the rate of deforestation actually decreased 25 percent from 1990 to 2010. Until now, "the Forest Resource Assessment (FRA) report of the United Nation's FAO was the only one available source to estimate long term forest change and its trends," said Do-Hyung Kim, lead author of the study that is expected to be published in Geophysical Research Letters. Read the full story at Reuters.com.

#### New England's Plants Face Significant Threat, Report Says By David Abel

March 26, 2015—The lime-green flowers of the slender orchid known as the Small Whorled Pogonia used to bloom on forested slopes throughout New England, but they — and more than one-third of the region's native orchids — are disappearing. In all, 22 percent of all native plant species in New England are now either extinct, rare, or in a state of decline, strangled by invasive vines, trampled by incautious hikers, or drowned by man-made dams, according to a land-mark report released Thursday by the New England Wild Flower Society. The report also found that nearly a third of all the region's plants are from elsewhere, and an increasing number are considered invasive [...]. Read the full story at The Boston Globe or the report at www.newfs.org.

# On the Horizon

April 1	Deadline: Intent to Apply DCR <u>Urban and Community</u>	May 9	Native Pollinator Conservation, UMass Extension,
	Forestry Challenge Grant		Smolak Farms, North Andover, www.umassgreeninfo.org
April 1	Deadline: Massachusetts Arbor Day Poster Contest	May 15	Plant Something Day, <u>www.mnla.com</u>
April 2	The Invasive Plant Issue and Invasive Plant	May 21	UF Today Webcast: <u>Technology</u> , <u>Pests and Urban Trees</u> ,
	Identification course, UMass Extension, Milford,		#121-999-467
	www.umassgreeninfo.org	May 28	Weed Walkabout, UMass Extension, Arnold Arboretum,
April 3	Mass. Certified Arborist (MCA) Exam, Elm Bank,		Boston, <u>www.umassgreeninfo.org</u>
	Wellesley, <u>www.massarbor.org</u>	June 3	SAVE THE DATE- Tree City/Line/Campus USA
April 11	Invasive Plants in Massachusetts; What, Why, Where		Awards Ceremony, Amherst, MA
	and How, UMass Extension, UMass Amherst,	June 11	Best Management Practices for Minimizing Landscape
	www.umassgreeninfo.org		Pests, UMass Extension, Hadley Farms Meeting House,
April 15	Deadline: seedlings orders, Mass. Tree Wardens'		Hadley, <u>www.umassgreeninfo.org</u>
'	and Foresters' Association	June 12-1	New England ISA Tree Climbing Competition,
April 21	MAA Dinner Meeting, Framingham, MA,		Northampton, MA <u>www.newenglandisa.org</u>
	www.massarbor.org	July 23	MNLA Annual Summer Conference, Topsfield, MA
April 23	Developing an Invasive Plant Management Program,		www.mnla.com
	UMass Extension, Milford, <u>www.umassgreeninfo.org</u>	Aug 5	Mass. Certified Horticulturalist (MCH) Exam,
April 24	Arbor Day in Massachusetts	o o	Westborough, MA, <u>www.mnla.com</u>
April 24	MAA Arbor Day of Service.	Sept 22	MAA Dinner Meeting, Framingham, www.massarbor.org
April 25	The 100-Square-Foot, 25-Tree, 5-Variety Backyard	Oct 2	MCA Exam, Elm Bank, Wellesley, www.massarbor.org
'	Apple Orchard Fruiting Wall!, UMass Extension,	Oct 2-3	SAVE THE DATE—2015 DCR Tree Steward
	Marshfield, <u>www.umassgreeninfo.org</u>	Training	
April 27	Scouting for Early-Season Landscape Pests and Problems,	Oct 9-11	Women's Tree Climbing Workshop, Petersham, MA
	UMass Extension, Amherst, <u>www.umassgreeninfo.org</u>	Oct 20	MAA Safety Saves, Elm Bank, Wellesley,
April 30	UF Today Webcast, Pests in our Midst, #119-819-267		www.massarbor.org
May 1	Deadline: Applications for <u>Urban and Community</u>	Oct 20	MAA Dinner Meeting, Framingham, www.massarbor.org
	Forestry Challenge Grants		7 New England ISA Annual Conference,
	- or corry or arrays or array		North Conway, NH, <u>www.newenglandisa.org</u>
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Karyn E. Polito, Lieutenant Governor

Matthew A. Beaton, Secretary, Executive Office of Energy and Environmental Affairs

John P. Murray, Commissioner, Department of Conservation and Recreation

Peter Church, Director of Forest Stewardship, Department of Conservation and Recreation

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